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INTRAVESICAL INSTILLATION OF BOTULINUM TOXIN A FOR OVERACTIVE BLADDER

Hypothesis / aims of study

Bladder wall injection of botulinum toxin A (BTX-A, Botox®, Allergan) has been increasingly used for the treatment of refractory neurogenic and idiopathic hyperactive bladder. Despite promising clinical outcome results, administering multiple injections through cystoscopy can be inconvenient and costly to potential patients. Intravesical instillation of BTX-A would be a major advancement in administration if the toxin crossed the urothelial barrier. We investigate clinical effects using BTX-A and protamine in liquid form.

Study design, materials and methods

Since January 2002, we have treated 5 patients with BTX-A bladder through this technique. Two patients had a confirmed diagnosis of interstitial cystitis (IC) and 3 had a diagnosis of multiple sclerosis (MS). All were refractive to standard therapies. The procedure involved pretreating the bladder with an instillation via foley catheter of 20ml of 1% lidocaine and 20ml of 1% protamine sulfate for 15 minutes. This was removed from the bladder and 200 units of BTX-A diluted in 20-40 ml of preservative-free normal saline was instilled and the catheter was removed. Patients were asked to hold the BTX-A in the bladder for 30 minutes.

Results

All of the patients tolerated the instillations for the entire duration without pain or incontinence. No patient developed any adverse events. Three of five patients (1 IC, 2 MS) experienced clinical improvement with this procedure. Diaries demonstrated decreases in voiding episodes 13±3 to 8±1 episodes/24 hours. Sleep quality reportedly improved as nocturic episodes decreased. Visual analog scores decreased from a mean 9 to 5. Questionnaires demonstrated that frequency, urgency and incontinent episodes decreased.

Interpretation of results

There is no comparison data.

Concluding message

Intravesical instillation of BTX-A and protamine sulfate may be a promising technique for voiding dysfunctions and IC as it appears to be safe and less invasive.